timicrobials, then in some situations risk-management strategies for older agents should be similar to those for critically important drugs. This is an issue that needs ongoing surveillance and evaluation. To our knowledge, data on the selection of co-resistance in methicillin-resistant Staphylococcus aureus via tetracycline use are still emerging.

Although we agree with most of the points raised in the letter of Catry and Threlfall, we do not agree that wide use in veterinary medicine alone should be a criteria for ranking antimicrobials as critically important for human medicine. The rankings of drugs according to their importance in human medicine are based on 2 criteria: (1) the agent or class is the sole therapy or one of a few alternatives used to treat a serious, life-threatening disease in humans and (2) the agent or class is used to treat diseases caused by organisms that may be transmitted via nonhuman sources or diseases caused by organisms that may acquire resistance genes from nonhuman sources. WHO has made a commitment to readdress the rankings in the list of critically important drugs every few years. At a June 2009 meeting in Copenhagen, the consultants (among others) reevaluated the tetracycline class and advised that their ranking be changed to critically important on the basis of their use as one of the sole agents in the treatment of human brucellosis and the potential transmission of that disease from animals to humans [3].

The ranking of antimicrobials allows us a starting place in controlling what is happening now in terms of resistance. However, the rankings do not obviate risk-management strategies for all antimicrobials used in human medicine. Hence, we still believe that our conclusion that “[t]he ranking allows stakeholders to focus risk management efforts on drugs used in food animals that are the most important to human medicine and, thus, need to be addressed most urgently, such as fluoroquinolones, macrolides, and third- and fourth-generation cephalosporins” [2, p 132] continues to be appropriate. However, we should continue to look at all issues that cause multiresistant bacteria to arise and spread to people from food animals, including the issues raised by Catry and Threlfall.

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Peter Collignon,1,2 John H. Powers,3,4 Tom M. Chiller,1,5 Awa Aidara-Kane,2,6 and Frank M. Aarestrup2
1Infectious Diseases Unit, Microbiology Department, Canberra Hospital, and School of Clinical Medicine, Australian National University, Woden, Australia; 2Scientific Applications International Corporation in support of the Collaborative Clinical Research Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, and 3University of Maryland School of Medicine, Baltimore; 4George Washington University School of Medicine, Washington, DC; 5Centers for Disease Control and Prevention, Atlanta, Georgia; 6Department of Food Safety, Zoonoses, and Foodborne Diseases, World Health Organization, Geneva, Switzerland; and 7Head Community Reference Laboratory for Antimicrobial Resistance and World Health Organization Collaborating Centre for Antimicrobial Resistance in Foodborne Pathogens, National Food Institute, Technical University of Denmark, Copenhagen, Denmark

References


Reprints or correspondence: Dr Peter Collignon, Canberra Hospital, Infectious Diseases Unit and Microbiology Department, PO Box 11, Woden, ACT 2607, Australia (peter.collignon@act.gov.au or collignon.peter@gmail.com)

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Antibiotic Dosing in Extended Dialysis

To the Editor—We read with interest the article by Mushatt et al [1] summarizing the slowly expanding knowledge on antibiotic dosing in extended dialysis. We would like to extend the call for additional studies in the field by suggesting changes in legislation and regulatory approval of new antibiotics/antimycotics aimed to be used in patients with acute and chronic renal failure. Basic pharmacokinetic studies under the circumstances of renal replacement therapy should be mandatory [2]. Those studies should be within preset coordinates of the renal replacement therapy that are based on current standards or current clinical practice. This would give treating physicians guidance as average fuel consumption based on the meticulous procedure of the European Union New European Driving Cycle or the Motor Vehicle Emissions Federal Test Procedure does to potential car buyers.

Furthermore, on 11 September 1945, Ms Schafstaat was the first patient who successfully underwent a dialysis treatment for acute kidney injury. The Dutch physician Willem J. Kolff, who passed away in February of this year [3], saved the life of the 67-year-old woman by treating her for 690 min (ie, 11.5 h) with a blood flow rate of 116 mL/min [4]. The treatment coordinates he set with this first renal replacement therapy (ie, prolonged dialysis time with low blood and dialysate flow rates) are enjoying an unsurpassed renaissance over the past decade for treatment of severely ill patients with acute kidney injury—these days called extended
daily dialysis [5]. Thirty-two years after this first extended daily dialysis, Peter Kramer introduced continuous arteriovenous hemofiltration as a method of “fluid withdrawal in over-hydrated patients resistant to diuretics” which enabled the physician to “ensure a negative fluid balance even at a mean blood pressure of only 60 mm Hg” [6], which would not have been able by using intermittent hemodialysis in this patient population at the time. Therefore, the statement by Mushatt and colleagues that “the original extended dialysis modality was continuous arteriovenous hemofiltration” is incorrect.

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Jan T. Kielstein* and Olaf Burkhardt†

Departments of *Nephrology and Hypertension and †Pulmonary Medicine, Medical School Hannover, Hannover, Germany

References


Reprints or correspondence: Dr Jan T. Kielstein, Dept of Nephrology and Hypertension, Medical School Hannover, Carl-Neuberg-Strasse 1, 30625 Hannover, Germany (kielstein@yahoocom).

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Continuous Infusion of Vancomycin Less Effective and Safe than Intermittent Infusion, Based on Pharmacodynamic and Pharmacokinetic Principles

To the Editor—The article by Rybak et al [1] addresses practice guidelines for therapeutic monitoring of vancomycin treatment for Staphylococcus aureus infection in adult patients. In this comprehensive review, recommendations are given regarding trough serum concentrations, dose optimization, and recognition of possible toxic effects. Furthermore, criteria and frequency of monitoring are discussed. This makes this review very practical for implementation in clinical practice.

However, recommendations are based on intermittent dosing of vancomycin only. In clinical practice, vancomycin is also administered by continuous infusion [3, 4]. Taking into account the time-dependent pharmacodynamic effect of vancomycin—which is comparable to that of β-lactams, for instance—continuous infusion seems to be a justifiable route of administration. Also, several authors [3–5, 8] have shown that continuous infusion enables faster and more consistent attainment of therapeutic levels, compared with those attained with intermittent dosing, without hampering efficacy or safety of vancomycin.

We agree with Rybak et al [1, 2] that there is apparently no difference in patient outcome associated with continuous infusion, compared with intermittent dosing. Nevertheless, the use of continuous infusion is regarded as a sensible way of administering vancomycin, especially in intensive care units.

Because no elaborate recommendation is given on the subject of continuous infusion in relation to optimal efficacy of vancomycin, we wish to comment on this. We believe that continuous infusion can be less effective and less safe than intermittent dosing in specific situations. Therefore, a recommendation on its restrictive use is given.

The pharmacokinetic parameter that best describes the efficacy of vancomycin, according to the latest insights into this matter, is a 24-h area under the curve (AUC24h)/minimum inhibitory concentration (MIC) ratio of ≥400 [2]. This ratio...